

REMARKS

This is intended as a full and complete response to the Office Action dated January 4, 2008, having a shortened statutory period for response set to expire on April 4, 2008. Claims 1-21 are pending in the application. Please reconsider the claims pending in the application for reasons discussed below.

Statement of Substance of Interview

On March 31, 2008, a telephonic interview was held between Walter C. Grollitsch, Michael Spradley, and the Examiner. The parties discussed the cited reference Liou (U.S. 6,292,299). Claims 1, 8, 15, and 18 were also discussed. Further, the limitations of claims 16 and 17 and the incorporation of these claims into claim 15 were discussed.

The arguments and amendments herein are presented in accordance with the substance of the interview to place the application in condition for allowance.

Claim Rejections Under 35 U.S.C. § 112

The Examiner rejected claim 17 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In response, Applicant has amended the claims accordingly. Therefore, Applicant respectfully requests the § 112 rejection be removed.

Claim Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 1-3 and 6-7 under 35 U.S.C. § 103(a) as being obvious over Liou (U.S. Patent 6,292,299) in view of Li (U.S. Patent 6,707,960) and Bosomworth (U.S. Patent 3,700,791). The Examiner rejected claims 4 and 5 under 35 U.S.C. § 103(a) as being obvious over Liou, Li, and Pan (U.S. Patent 5,742,712). The Examiner rejected claims 8 and 18-19 under 35 U.S.C. § 103(a) as being obvious over Liou and Scobey (U.S. patent 6,320,996). The Examiner rejected claims 9-11 and 20 under 35 U.S.C. § 103(a) as being obvious over Liou, Scobey, and Li. The Examiner rejected claim 12 under 35 U.S.C. § 103(a) as being obvious over Liou, Scobey, and Hubbard (U.S. Patent 5,506,053). The Examiner rejected claims 13 and 14 under 35 U.S.C. § 103(a) as being obvious over Liou, Scobey, and Pan. The Examiner rejected

claims 15-17 under 35 U.S.C. § 103(a) as being obvious over Liou. In response, Applicant has amended independent claims 1, 8, 15, and 18.

As amended, claim 1 includes the limitation of a reflective coating that has a thickness that is an integer multiple of the specific wavelength of the input optical signal, divided by $\sin(\theta)$. As amended, claim 8 includes the limitation of a coating of a reflective material that has a thickness t that allows for hitless switching as the thin film filter moves between a pass-through state and a blocking state and the thickness t is equal to a parameter n times a specific wavelength λ of the light signal, divided by $\sin(\theta)$. As amended, claim 15 includes the limitation of a filter having a coating with a thickness t that is governed by the following equation: $t(\sin\theta) = n\lambda$, wherein the angle θ denotes the incident angle of light, the symbol λ denotes a particular wavelength and the symbol n denotes an integer or fractional number, wherein if n is an integer then the intensity of the light beam I is at a maximum and if $n = \frac{1}{2}$ then the intensity of the light beam I is at a minimum. As amended, claim 18 includes the limitation of a reflective material having a thickness t that allows the specific wavelength of the light signal to undergo hitless switching as a portion of a light beam projects on the thin film and another portion of the light beam projects on the reflective material, wherein the thickness $t = n\lambda/(\sin\theta)$.

As discussed during the interview, Liou or the combination of Liou and Li, or Bosomworth or Pan or Scobey fails to disclose a switch that includes a thin film filter having an upper surface and a lower surface, wherein the upper surface includes a reflective coating with a thickness t equal to a parameter n times a specific wavelength λ of the light signal, divided by $\sin(\theta)$ to allow hitless switching as the thin film filter moves between a pass-through state and a blocking state (i.e. at a transient state). Liou merely discloses a tunable optical device comprising a hitless wavelength-tunable optical filter (see Liou, col. 2, lines 49-53). Liou further states that the hitless tuning of the device is accomplished by changing the point at which an optical beam is incident upon the filter region track whenever the beam strikes the device in a filter region (see Liou, col. 2, lines 15-18). In other words, Liou fails to disclose hitless switching as recited in the amended claims and the relationship between the thickness of the reflective coating on the filter and the hitless switching. Further, Li, Bosomworth, Pan, and Scobey fail to cure the deficiencies of Liou.

As the forgoing illustrates, Liou or the combination Liou and Li, or Bosomworth or Pan or Scobey fails to teach all the limitations of claims 1, 8, 15, and 18. This failure precludes, Liou

or the combination Liou and Li, or Bosomworth or Pan or Scobey from rendering claims 1, 8, 15, and 18 obvious. Applicant therefore submits that claims 1, 8, 15, and 18 are in condition for allowance and respectfully requests withdrawal of the § 103(a) rejection. Additionally, the claims that depend from claims 1, 8, 15, and 18 are allowable for at least the same reasons as claims 1, 8, 15, and 18.

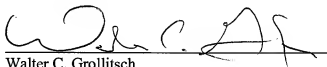
New Claims

New claims 23-25 have been added to claim aspects of the present invention. Applicant submits that no new subject matter has been added. Since claim 23 depends from claim 1, claim 24 depend from claim 8 and claims 25 depends from claim 18, these claims are allowable for at least the same reasons as claims 1, 8 and 18. Therefore, Applicant believes that new claims 23-25 are in condition for allowance and respectfully requests the same.

Conclusion

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully requests that the claims be allowed.

Respectfully submitted,



Walter C. Grollitsch
Registration No. 48,678
PATTERSON & SHERIDAN, L.L.P.
3040 Post Oak Blvd. Suite 1500
Houston, TX 77056
Telephone: (713) 623-4844
Facsimile: (713) 623-4846
Attorney for Applicant(s)